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UNITED STATES DISTRICT COURT

DISTRICT OF OREGON

PORTLAND DIVISION

LEUPOLD & STEVENS, INC.,

Plaintiff,

v.

**LIGHTFORCE USA, INC. d/b/a
NIGHTFORCE OPTICS and
NIGHTFORCE USA,**

Defendant.

Civil Case No.: 3:16-cv-01570-HZ

**DEFENDANT NIGHTFORCE'S
MOTION FOR ADDITIONAL
CLAIM CONSTRUCTION
OF U.S. PATENT NO. 6,351,907**

REQUEST FOR ORAL ARGUMENT

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LOCAL RULE 7-1 CERTIFICATION

In compliance with this Rule, the parties made a good faith effort through a telephone conference to resolve the dispute and have been unable to do so.

MOTION

Additional construction of '907 patent claim 10 and four dependent claims is necessary to resolve the parties' differing interpretations and dispute regarding the correct meaning and scope of the claims to avoid any inappropriate argument or expert opinion regarding claim construction at trial. Accordingly, Defendant Nightforce respectfully moves for an order construing the following claim terms in the '907 patent as set forth in the following Memorandum:

1. "focus control device projecting *outwardly from the* exterior of the housing" (*see* '907 patent claim 10 (emphasis added));
2. "the spiral cam track spiraling *outwardly from the* axis of rotation" (*id.* (emphasis added));
3. "substantially Archimedean spiral" (*see* '907 patent claims 7, 17); and
4. "curvature that causes . . . a nonlinear rate" of movement (*id.* claims 8, 18).

Good cause supports Nightforce's motion, including that the Court recognized additional briefing from the parties would be required to develop arguments about the construction of the first claim element listed above. (*See* Sept. 26, 2019 Opinion & Order (ECF No. 180) ("Opinion & Order") at 13–14.) Construction of the two phrases at issue in claim 10 should be undertaken to provide the jury with a correct construction that is internally consistent, if possible, with respect to the overlapping language "outwardly from the" used in both phrases. Moreover, issues relating to the construction of the four dependent claims 7–8 and 17–18 arose after the initial claim construction process and summary judgment briefing.

MEMORANDUM

I. CLAIM 10 “OUTWARDLY FROM THE” CONSTRUCTIONS

Claim 10 of the '907 patent includes two phrases using the term “outwardly from the,” neither of which is in claim 1. Nightforce contends that Leupold’s interpretation of the simple word “from” in asserting infringement of claim 10 is contrary to its plain and ordinary meaning. *See, e.g.,* MacMillan Dictionary (“starting at a particular point and moving away”) (available at https://www.macmillandictionary.com/dictionary/american/from#from_21); *see also* Webster’s Third New International Dictionary 913 (1993) (“used as a function word to indicate a starting point”).

The two phrases at issue in claim 10 and discussed in detail below are:

- “focus control device projecting *outwardly from the* exterior of the housing” and
- “the spiral cam track spiraling *outwardly from the* axis of rotation.” (Emphases added.)

Leupold effectively reads these limitations out of the claims. Claim 10 does not say projecting outwardly “through” the exterior of the housing or spiraling outwardly “relative to” the axis of rotation. Instead, it says “from,” and “from” in this context means the point in space at which it *starts*. Something is generally not *from* a point if it did not *start* there. And nothing is *from* a place it has *never been*. This is an easily understood term with a plain meaning.

The dispute presents issues of claim construction for the Court to resolve. *See O2 Micro Int’l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008) (“When the parties present a fundamental dispute regarding the scope of a claim term, it is the court’s duty to resolve it.”). And the Court should consider together these two phrases having shared language and construe them consistently, if possible, to have the same meaning each place they are found

in the claims. *See In re Varma*, 816 F.3d 1352, 1363 (Fed. Cir. 2016) (“the principle that the same phrase in different claims of the same patent should have the same meaning is a strong one, overcome only if ‘it is clear’ that the same phrase has different meanings in different claims”) (citations omitted); *see also Scripps Research Inst. v. Illumina, Inc.*, No. 2018-2089, 2019 WL 4071879, at *4 (Fed. Cir. Aug. 29, 2019) (nonprecedential) (giving the same meaning to term appearing in different places in the same patent “following ordinary principles of internal-document coherence,” and construing the same term to have the same meaning each place it appeared within a claim).

A. A Manually Adjustable Focus Control Device Projecting Outwardly From The Exterior Of The Housing

The Court has identified the following term as needing construction: “focus control device projecting *outwardly from the* exterior of the housing.” (*See* Opinion & Order at 13–14 (emphasis added).) For the reasons explained below, that term should be construed to mean “*the focus control device (knob), that includes the cam hub and actuator slide, starts at the housing and projects outwardly from the exterior of the housing.*”

During summary judgment briefing, Leupold moved for summary judgment of infringement of claim 10 and its dependent claims. Nightforce pointed out that claim 10 requires that the focus control device: 1) project outwardly from the exterior of the housing; and 2) include an actuator slide. Nightforce showed that the alleged actuator slide of the accused products was inside of the housing of the scope and thus not in a focus control device *projecting outwardly from* the exterior of the housing. Leupold argued that “Claim 10, quoted above, actually requires only that some portion of the focus control device (knob) ‘project[] outward’ from the housing.” (ECF No. 147 at 3.) Claim construction of the phrase “focus control device projecting outwardly from the exterior of the housing” is necessary to resolve this issue.

Claim 10 of the '907 patent requires a manually adjustable focus control device (knob)¹ that includes both a “cam hub” and an “actuator slide,” with the knob location defined in the claim: it projects outwardly from the exterior of housing. None of the accused Nightforce riflescopes have a knob that projects, with its “actuator slide,” outwardly from the housing. Rather, the alleged “actuator slide” identified by Leupold in the accused products is *inside* the riflescope *housing* itself, not in the knob. As such, none of Nightforce’s accused riflescopes infringe Claim 10 or its dependent claims under a proper construction.

1. Claim 10 “Projecting Outwardly From” Limitations

The portion of claim 10 at issue recites:

(c) a manually adjustable *focus control device projecting outwardly from the exterior of the housing* in a direction transverse to the longitudinal axis, *the focus control device including:*

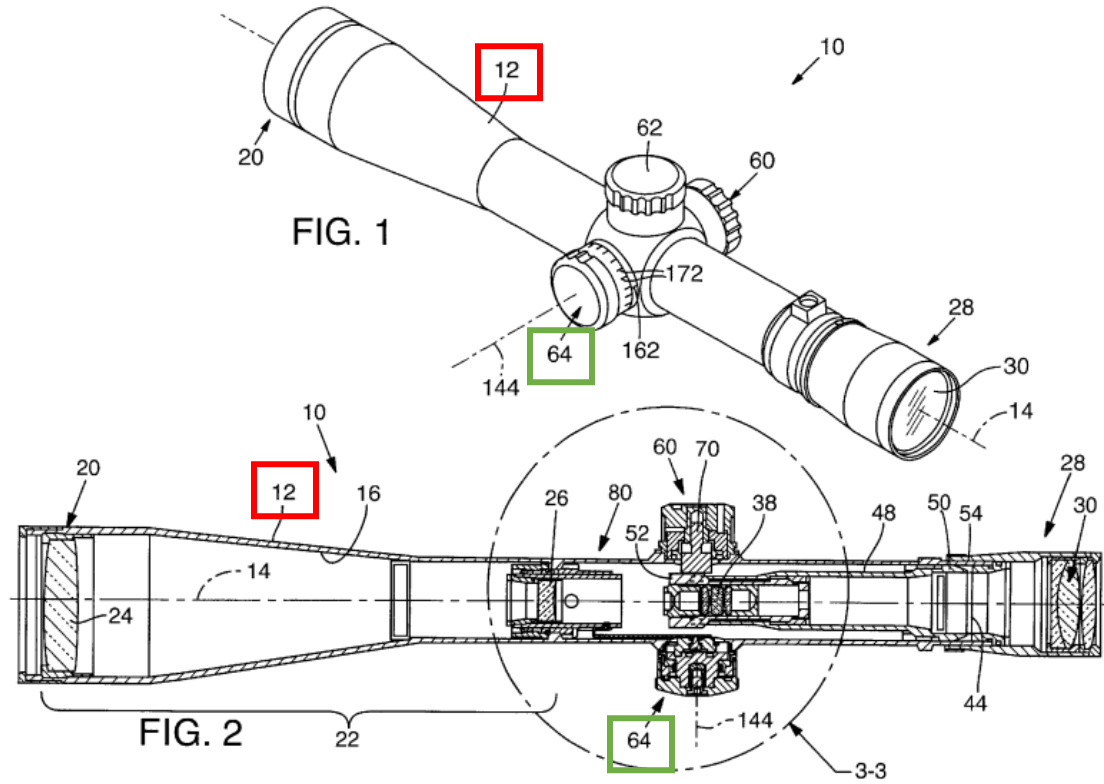
(i) *a cam hub* mounted for rotation about an axis of rotation, the cam hub positioned so that the axis of rotation is substantially perpendicular to the longitudinal axis, the cam hub including a drive face facing toward the interior of the housing and a spiral cam track formed in the drive face around the axis of rotation, the spiral cam track spiraling outwardly from the axis of rotation, and

(ii) *an actuator slide* slidably mounted to the housing for movement along the longitudinal axis and including a cam follower operably engaged in the spiral cam track so that the actuator slide moves generally along the longitudinal axis in response to rotation of the cam hub, the actuator slide operatively connected to the movable optical element to drive the movable optical element in response to rotation of the cam hub and thereby adjust the focus setting of the telescopic rifle sight.

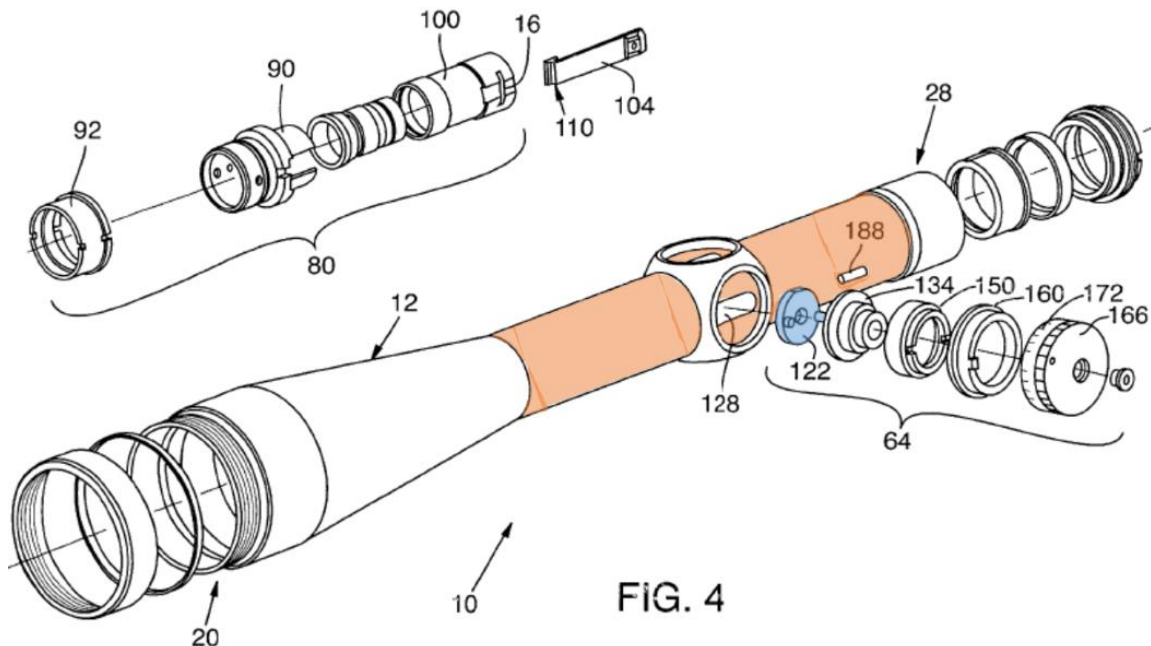
(Emphasis added.)

¹ The '907 patent and both parties have used the terms “focus control device” and “knob” interchangeably in this case. For example, part 64 in the drawings is alternately identified in the '907 patent as a “focus control device 64” ('907 patent 5:6) and a “focus control knob 64” (*id.* 6:37). The term “knob” is used interchangeably herein to refer to the claimed focus control device.

Claim 10 of the '907 patent thus requires a focus control device (knob) “projecting outwardly from the exterior of the housing.” Figures 1 and 2 of the '907 patent show a focus knob (numbered 64; green annotation added) and a housing (numbered 12; red annotation added) of a riflescope.



Claim 10 also requires that this focus control knob, projecting outwardly from the housing, *include both* a cam hub (the part with the spiral cam track) and an actuator slide (the part with the cam follower). Figure 4 of the '907 patent shows focus knob components (numbered 64) in an exploded view, including the knob's cam hub (numbered 134) and its actuator slide (numbered 122, blue highlighting added), and the housing (numbered 12, partial orange highlighting added, including around guide slot 128).



Claim 10 further defines the position of the knob including and containing a cam hub and an actuator slide. Claim 10 recites that the actuator slide of the knob is “slidably mounted *to* the housing” (emphasis added). In Figure 4, the actuator slide 122 (shown in blue) forms the bottom portion of the knob and is mounted to the exterior of the housing (shown in orange). A broad description of an actuator slide in the specification is consistent with claim 10 in that the “*actuator slide* [is] positioned between the cam hub and the housing,” and therefore it is *outside* of the housing as a part of the knob that projects outwardly from the exterior of the housing:

The focus control knob of the present invention includes a cam hub mounted to the housing for rotation about an axis of rotation. The cam hub includes a drive face positioned facing the interior of the housing and a spiral cam track formed in the drive face around the axis of rotation and spiraling outwardly from the axis of rotation. An actuator slide positioned between the cam hub and the housing of the sight includes a cam follower slidably engaged with the spiral cam track.

(’907 patent 3:27–36 (emphasis added).)

Leupold chose to claim this positionally specific feature of the alleged invention in claim 10 with the knob projecting outwardly *from* the housing, and to require that the knob include an

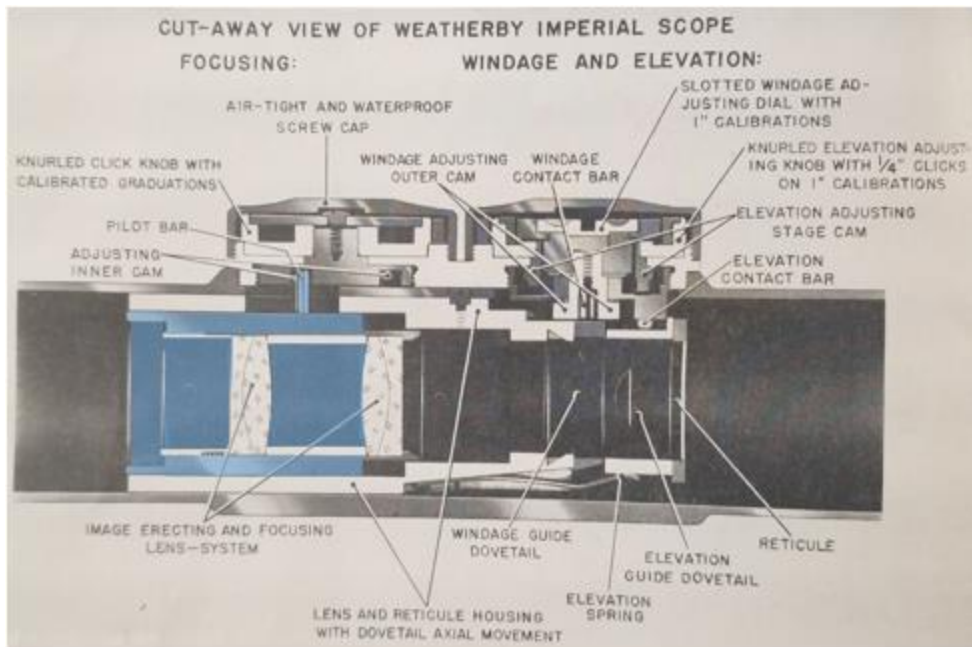
actuator slide mounted *to* the housing, necessarily placing the actuator slide “between the cam hub and the housing”—*i.e.*, “exterior” to the housing.

The location of the knob is precisely defined by the claim language: “projecting outwardly from the exterior of the housing in a direction transverse to the longitudinal axis.” Each word must carry meaning. Claim 10 does not say that the knob projects outwardly *through* the housing, but rather it says “outwardly *from* the exterior of the housing.” As noted above, “from” means a point in space at which something starts. *See, e.g.*, MacMillan Dictionary (“starting at a particular point and moving away”) (available at https://www.macmillandictionary.com/dictionary/american/from#from_21); *see also* Webster’s Third New International Dictionary 913 (1993) (“used as a function word to indicate a starting point”). Thus, the knob containing a cam hub and an actuator slide projects outwardly starting at the exterior of the housing. Nothing in the specification or file history requires anything other than applying this ordinary meaning.

As properly construed, the phrase “focus control device projecting outwardly from the exterior of the housing” means that the focus control device (knob), along with the actuator slide included therein, starts at the exterior of the housing and projects outwardly from the exterior of the housing.

2. Nightforce’s Design Is Similar To Prior Art Weatherby Scopes

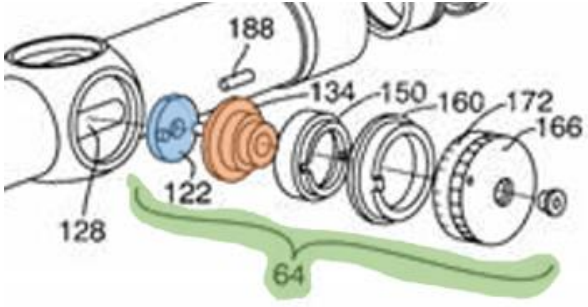
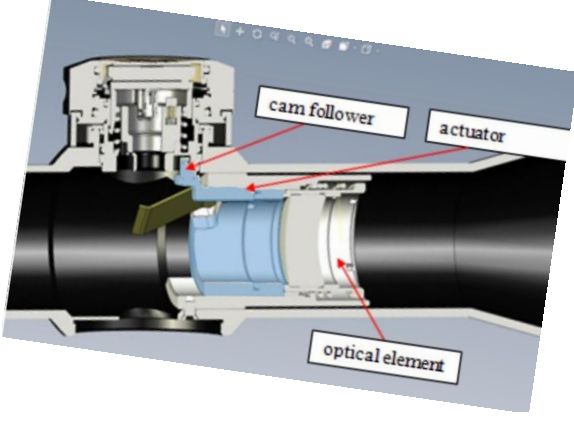
Nightforce’s accused design is remarkably similar to the prior art design in the Weatherby Imperial scopes of the 1950s–1970s. In the Weatherby Imperial scope, an *internally* mounted moveable lens unit contacts a spiral cam in an external knob via a pin mounted to the lens unit (shown by added blue coloring).



(See Ex. 1 at 20.)²

The accused design uses the same approach, with an internally mounted lens unit contacting a cam in an external knob via a component mounted to the internal lens unit—and *not mounted to the housing or inside the knob*. The accused products have neither an actuator slide in the knob nor an actuator slide that projects outwardly from the exterior of the housing. This is illustrated below, in a comparison to Figure 4 of the '907 patent. Nightforce products do not have both the orange and blue components contained in the green highlighted knob 64 as required by claim 10 as the accused actuator is inside the scope housing as shown in the figure on the right taken directly from Leupold's infringement contentions (where the accused alleged actuator has been colored in blue).

² Unless otherwise noted, cited exhibits are attached to the Declaration of Arie Pellikaan filed contemporaneously herewith.

	
'907 Patent, Fig. 4 annotated	Accused Product, <i>see</i> ECF No. 83-3 at 225

The tenets of claim construction support the construction proposed herein: a construction that the accused products do not infringe.

B. The Spiral Cam Track Spiraling Outwardly From The Axis Of Rotation

Nightforce requests the Court to construe an additional limitation found in claim 10 of the '907 patent: "the spiral cam track spiraling *outwardly from the* axis of rotation." The limitation is within a larger phrase at claim 10(c)(i):

(i) a cam hub mounted for rotation about an axis of rotation, the cam hub positioned so that the axis of rotation is substantially perpendicular to the longitudinal axis, the cam hub including a drive face facing toward the interior of the housing and a spiral cam track formed in the drive face around the axis of rotation, *the spiral cam track spiraling outwardly from the axis of rotation*

(Emphasis added.)

This limitation construed according to the ordinary meaning of "outwardly *from*" means that *the spiral cam track starts at the axis of rotation and spirals outwardly from a point on the axis of rotation.*

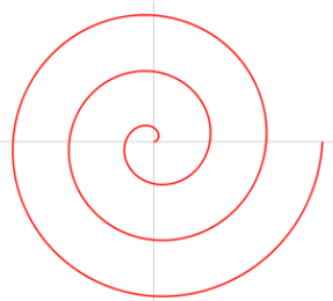

**1. Good Cause To Construe The
Second “*Outwardly From The*” Limitation**

This limitation was not part of the *Markman* proceedings, but there are at least three reasons to now construe this claim limitation nonetheless.

First, its language overlaps the “projecting outwardly from” limitation in the same claim 10 discussed above, which limitation the Court already has identified as needing construction. (*See* Opinion & Order at 13–14.). The shared three-word phrase “outwardly from the” in the “projecting” and “spiraling” limitations of claim 10 strongly suggests that both terms should be construed. It is a “strong” principle of patent claim construction that the same phrase presumptively has the same meaning each place it is found in the claims: “the principle that the same phrase in different claims of the same patent should have the same meaning is a strong one, overcome only if ‘it is clear’ that the same phrase has different meanings in different claims.” *In re Varma*, 816 F.3d 1352, 1363 (Fed. Cir. 2016) (citations omitted); *see also Scripps Research Inst. v. Illumina, Inc.*, No. 2018-2089, 2019 WL 4071879, at *4 (Fed. Cir. Aug. 29, 2019) (nonprecedential) (giving the same meaning to a term appearing in different places in the same patent “following ordinary principles of internal-document coherence,” and construing the same term to have the same meaning each place it appeared within a claim). Therefore, it is logical to construe together these two limitations sharing common language, to ensure that “outwardly from the” is given a consistent meaning, if possible.

Second, if the Court construes the limitation in the manner proposed by Nightforce, it is expected that Leupold will stipulate to non-infringement of claim 10 and its asserted dependent claims, simplifying any trial. No accused cam track is even arguably in the shape of a spiral “*spiraling outwardly from the axis of rotation.*” On the contrary, the cam track in each of Nightforce’s accused devices does not begin at the axis of rotation, and, for all but one, the cam

track *cannot* start at the axis of rotation because there is a circular void surrounding the axis of rotation. This difference is illustrated below. On the right is an accused cam track that *does not start at or from* the “axis of rotation,” the point at the center of the part. In contrast to the accused products, the example below on the left illustrates a classic spiral spiraling out from its point of origin, which point must be at the axis of rotation to meet the requirement of claim 10.

Example of a general Archimedean spiral spiraling outwardly from a point	Example of an accused Nightforce cam
 <p data-bbox="207 1087 794 1119">https://en.wikipedia.org/wiki/Archimedean_spiral</p>	 <p data-bbox="951 1098 1295 1159">Aug. 10, 2018 Byron Report, Ex. C, ECF No. 83-3 at 287</p>

Nightforce did not earlier seek construction of this limitation. Instead, both parties treated this claim limitation as superfluous. Specifically, Leupold disregarded this additional claim limitation in its infringement contentions. Mr. Byron’s report regarding claim 10 also ignores this additional limitation. (*See* ECF No. 83-3, ¶¶ 507–522.) For its part, Nightforce relied on Leupold’s treatment of this claim limitation as superfluous, to argue that certain prior art lacking this limitation nevertheless anticipated claim 10. But now, the Court’s recent Opinion & Order (ECF No. 180) has put in question whether some of that prior art, *e.g.*, the Schmidt & Bender German Publication, qualifies as prior art vis-à-vis claim 10, a ruling Nightforce elsewhere is

asking the Court to reconsider.³ Nevertheless, the Court denied Nightforce’s summary judgment motion (ECF No. 180), even as to claim 10, on the issue of whether Leupold could prove invention before filing a patent application. Therefore, Nightforce submits that it should be permitted to now seek a legally correct construction of this limitation, “spiraling outwardly from the axis of rotation,” to support its non-infringement defense.

Third, had this action at the outset been limited to the ’907 patent, or a more reasonable number of asserted patents and asserted patent claims, then this limitation could have been given an appropriate level of attention in the original *Markman* briefing and argument. As the Court has noted, what Leupold filed as a single case “really is more like seven or eight different cases” (Oct. 18, 2019 Tr. at 4:10–11) asserting what sounds like an excessive number of patent claims (*see* Sept. 21, 2018 Tr. at 13:17–25). By the time of the claim construction hearing, and through the summary judgment deadline, Leupold was asserting over 90 patent claims across eight patents. The Court nevertheless requested that the parties agree on just 15 claim terms to address at the claim construction hearing, and of those terms, only 12 were addressed at the hearing and construed by the Court. (*See* ECF No. 69 at 6.) The Court construed three claim terms in the ’907 patent, none of which was unique to claim 10. (*Id.* at 7.)

Finally, construing the “spiraling” phrase, even if that is ascribing an ordinary meaning to it, is necessary and required to prevent the parties from impermissibly arguing or presenting evidence on the proper construction of the term to the jury. *See O2 Micro*, 521 F.3d at 1362

³ Specifically, as explained in Nightforce’s motion regarding invalidity filed contemporaneously herewith, Leupold presented no corroborated or documentary evidence of inventing before the 1999 Provisional application’s filing date a “telescopic rifle sight” having each limitation of claim 10, *e.g.*, among other things, a “pivotally moving . . . erector assembly” and the combination of such an erector assembly in a rifle sight using a “spiral cam track” adjustment mechanism.

(“When the parties present a fundamental dispute regarding the scope of a claim term, it is the court’s duty to resolve it.”).

2. Claim 10 Requires The Spiral To Start At The Axis Of Rotation And Spiral “Outwardly *From*” There

Claim 10 is more restrictive than claim 1 as to the location of the spiral cam track on the drive face. Both require that the spiral cam track be located around the axis of rotation: “a spiral cam track formed in the drive face *around the axis* of rotation.” To “spiral around” the axis means that the axis of rotation is at the center point of the spiral such that the linear distance from the axis of rotation to the track continuously increases as an object traverses the track radially about the axis. In other words, this claim 1 limitation requires that the cam track spiral outwardly relative to the location of the axis of rotation. But this claim 1 limitation does not necessarily require that the spiral *start* at the axis of rotation because it does not require that it spiral “outwardly *from* the axis of rotation.”

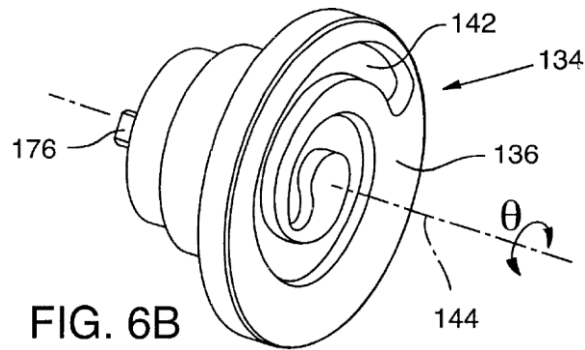
Claim 10, however, adds that additional location limitation, reciting: “the spiral cam track spiraling outwardly *from* the axis of rotation.” This additional location limitation “from” cannot be disregarded, or treated as superfluous. The spiral must not only spiral about or “around” the axis of rotation, but it must start at, *i.e.*, spiral from, that axis of rotation. Importantly, this limitation does not say spiraling outwardly “relative to” the axis of rotation. Instead, it says “from,” and “from” in this context means the point in space at which it *starts*. *See, e.g.*, MacMillan Dictionary (“starting at a particular point and moving away”) (available at https://www.macmillandictionary.com/dictionary/american/from#from_21); *see also* Ex. 2 Webster’s Third New International Dictionary at 913 (1993) (“used as a function word to indicate a starting point”). It cannot be said to be *from* a point if it did not *start* there or has never been there.

The ordinary meaning and definition of “from” in this context is consistent with the definition of a “spiral,” which can be viewed as spiraling “into some point” or “out from some point,” and that point is defined in claim 10 to be on the “axis of rotation.” (See Ex. 3, Dictionary of Scientific and Technical Terms at 1889 (McGraw-Hill 5th ed. 1994) (“spiral [MATH] A simple curve in the plane which continuously winds about itself either into some point or *out from some point*.” (emphasis added)); see also *id.* (“spiral of Archimedes [MATH] The curve *spiraling into the origin . . .*”) (emphasis added).)

Moreover, nothing in the ’907 patent ascribes any special or narrower meaning to “from” or “spiral” that would change the understanding that by reciting “the spiral cam track spiraling outwardly from the axis of rotation,” the cam track must start at a point on the axis of rotation and spiral out from there. Leupold did not disclaim any ordinary understanding of the simple words “from” and “spiral” to alter their ordinary contextual meaning. Nor did Leupold act as its own lexicographer to redefine “from” or “spiral” in a special, unusual way.⁴

The axiom of claim construction that it is generally improper to construe a claim limitation so as to exclude all of the embodiments in the patent also does not apply or require assigning a special meaning to the ordinary words in the phrase at issue. Here, the patent’s one and only *depicted* embodiment complies with the broader “around the axis” limitation of claims 1 and 10 but *not* the narrower “spiraling outwardly from” limitation of claim 10:

⁴ As the Court noted in its claim construction Opinion & Order (ECF No. 69), absent a clear disclaimer or disavowal or an inventor acting as his or her own lexicographer, “words of a claim are generally given their ordinary and customary meaning.” (*Id.* at 3 (quoting *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc).)



In Figure 6B, the cam track 142 does not intersect or meet the axis of rotation, so it cannot be said to spiral “outwardly *from* the axis of rotation” as required by claim 10. In other words, because in Figure 6B no part of the cam track is at the “axis of rotation” the cam track cannot spiral “from” the axis of rotation. The “starting point” cannot be a point that the spiral never meets or intersects. *See, e.g.*, Webster’s Third New International Dictionary at 913 (1993) (from is “used as a function word to indicate a starting point”).

But not all embodiments are *depicted* in a figure in the ’907 patent—only one preferred embodiment is shown in Figure 6B. The ’907 patent purports to include many other spiral shapes than those depicted in Figure 6B. It recites that “[s]piral cam groove 142 can be of any spiral shape and length suitable for causing movable objective lens portion 26 to move with a movement profile that will allow smooth and accurate adjustment of the focus of sight 10.” (’907 patent 6:45–49.) The ’907 patent concludes that “[i]t will be obvious to those having skill in the art that many variations can be made on the shape of spiral cam groove 142 to produce different movement profiles . . .” (*Id.* at 6:63–65.) Nothing limits the patent claims to the one depicted embodiment in Figure 6B in which the spiral cam track does not start at the axis of rotation.

Similarly, claim 10 need not be construed contrary to the ordinary meaning of the term “the spiral cam track spiraling outwardly from the axis of rotation” to include the one depicted embodiment in Figure 6B. Claim 1 covers the spiral cam track shown in Figure 6B so there is no

reason to twist the plain meaning of claim 10 to also include that one example of a spiral cam track. *See Boss Indus., Inc. v. Yamaha Motor Corp. U.S.A.*, 333 F. App'x 531, 542 (Fed. Cir. 2009) (unpublished) (affirming construction that excluded some disclosed embodiments, which were covered by other claims that omitted the claim requirement at issue); *TIP Sys., LLC v. Phillips & Brooks/Gladwin, Inc.*, 529 F.3d 1364, 1373 (Fed. Cir. 2008) (“the claims of the patent need not encompass all disclosed embodiments”).

Finally, claim 10 as filed with the application for the '907 patent is part of the specification and written description of the alleged “invention.” *See Mentor Graphics Corp. v. EVE-USA, Inc.*, 851 F.3d 1275, 1297 (Fed. Cir. 2017) (“Original claims are part of the original specification . . .”). As such, claim 10 as filed with the patent application is itself a disclosed embodiment. That embodiment is different than that of claim 1 and Figure 6B, and claim 10's description of that embodiment adds the requirement that the cam track spiral “outwardly from the axis of rotation.” (*See* Application for the '907 patent, Ex. 4 at 14.)

Construing “the spiral cam track spiraling outwardly from the axis of rotation” according to its ordinary and customary meaning as requested by Nightforce does not exclude all embodiments mentioned in the '907 patent or run afoul of any other claim construction principle. The plain meaning approach is instead required because “words of a claim are generally given their ordinary and customary meaning” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc), and no exception to that principle applies here.

In sum, the Court should construe this second “outwardly from the” claim limitation, and construe it to mean that *the spiral cam track starts at the axis of rotation and spirals outwardly from a point on the axis of rotation.*

II. **SPIRAL SHAPE LIMITATIONS: “SUBSTANTIALLY ARCHIMEDEAN SPIRAL” AND “NONLINEAR RATE” CAUSED BY THE SPIRAL CAM TRACK**

Another claim construction issue arose in June 2019, since summary judgment briefing and arguments. The issue is whether the same spiral can be both “*substantially* Archimedean (linear)” and “non-Archimedean (non-linear)” to simultaneously satisfy claims 7–8 and 17–18. Prior to June, the parties (and Leupold’s expert witness) appeared to agree that the answer is “Yes,” but then in June Leupold’s expert appeared to change his position to “No.”

Claims 7 and 17 allow for a spiral to be only “*substantially* Archimedean.” If not strictly Archimedean, the spiral will cause nonlinear movement over at least a portion of the spiral so a single spiral could simultaneously satisfy claims 7–8 and 17–18. Leupold and its expert seemed to agree in its infringement contentions but then took the opposite position to argue against prior art invalidity.

This spiral-shape issue must be resolved so that experts are not arguing claim construction to the jury. *See generally O2 Micro*, 521 F.3d at 1362.

The parties appear to be in agreement with the general proposition that an Archimedean spiral-shaped cam will cause a constant rate of linear movement if the spiral is rotated at a constant rate. The description in the ’907 patent itself supports that proposition:

The use of an Archimidean spiral (as shown in FIG. 6B) results in a constant rate of movement of objective lens portion 26 in response to constant rate of rotation of cam hub 134. This constant rate of movement is illustrated in FIG. 7 by linear movement profile “A.” It will be obvious to those having skill in the art that many variations can be made on the shape of spiral cam groove 142 to produce different movement profiles such as, for example, the non-linear movement profiles illustrated in FIG. 7.

(’907 patent 6:58–67.) These ideas were not new, but instead were well-known and elementary principles used in cam design more than a century before the application for the ’907 patent.

(*See, e.g.,* Ex. 5, Engineering Drawing and Design at 60 (1893) (“It is, however, easy to shape a

cam which shall transmit a uniform linear motion, and it happens that the outline of such a cam coincides with a curve known in mathematics as the Archimedean Spiral . . .”).)

Leupold’s expert Mr. Byron has taken apparently inconsistent positions. For purposes of Mr. Byron’s report alleging *infringement*, and before he was aware of Weatherby and Zeiss spiral cam prior art, he noted for his claim 7 analysis that a single Nightforce part “V340 includes two adjacent groove segments, each of which is in the shape of an Archimedean spiral” and for his claim 8 analysis “has an overall curvature that would cause the cam follower and actuator to move at a nonlinear rate.” (Sept. 22, 2018 Byron Report, ECF No. 83-3, ¶¶ 502, 505.) In other words, he apparently took the position that the same spiral can be both “*substantially* Archimedean (linear)” and “non-Archimedean (non-linear)” to simultaneously satisfy claims 7–8 and 17–18. But then, analyzing Weatherby and Zeiss prior art for purposes of *invalidity*, Mr. Byron takes the opposite position to argue that “claims 17 and 18 add the diametrically opposed limitation that the spiral cam track either be substantially Archimedean (linear) or non-Archimedean (non-linear). As discussed above, the same cam track cannot possibly satisfy both of these claims at once . . .” (Ex. 6, Jun. 12, 2019 Byron Report, ¶ 172.)

The dispute for the Court to resolve is whether a segment or portion of a spiral in the shape of an Archimedean spiral is sufficient to satisfy the requirement of a “substantially Archimedean” spiral in claims 7 and 17. In other words, is a spiral shape that causes a linear rate of movement over one portion of its curvature sufficient to satisfy claims 7 and 17 if another portion of the spiral or its overall shape results in a nonlinear rate of movement to satisfy claims 8 and 18? Leupold cannot have it both ways and argue “yes” for purposes of infringement and “no” for purposes of invalidity.

Leupold effectively took the position that a single spiral may satisfy claims 7 and 17 and claims 8 and 18—before Leupold was aware of Nightforce’s reliance on the Weatherby and Zeiss spiral cam prior art. No claim construction principle changes the meaning of a claim term once a patentee becomes aware of prior art in litigation. The plain words of claims 7–8 and 17–18 allow for a spiral to cause “nonlinear” movement over at least part of its curvature because claims 7 and 17 do not require the spiral to be “strictly Archimedean.” Since only a “*substantially* Archimedean” spiral is required by claims 7 and 17, a single spiral can simultaneously satisfy claims 7 and 8 and claims 17 and 18. The Court should construe these claims according to their plain words, allowing overlap of claims 7 and 17 with claims 8 and 18 in that a single spiral cam track can have a “substantially Archimedean” shape or segment and also cause “nonlinear” movement.

III. CONCLUSION

As set forth above, the Court should construe additional claim terms as follows:

Claim 10 Terms	Construction
focus control device projecting outwardly from the exterior of the housing	The focus control device (knob), that includes the cam hub and actuator slide, starts at the housing and projects outwardly from the exterior of the housing.
the spiral cam track spiraling outwardly from the axis of rotation	The spiral cam track starts at the axis of rotation and spirals outwardly from a point on the axis of rotation.
Claim 7 and 17 Terms	Construction
a substantially Archimedean spiral so that the actuator or slide is moved at a	The spiral cam track includes at least one segment having the curvature of a substantially Archimedean spiral.

constant rate in response to a constant rate of rotation of the cam hub	
Claim 8 and 18 Terms	Construction
a curvature that causes the actuator to move at a nonlinear rate in response to a constant rate of rotation of the cam hub	The spiral cam track includes at least one segment that causes the actuator to move at a nonlinear rate in response to a constant rate of rotation of the cam hub.

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